

Historic, archived document

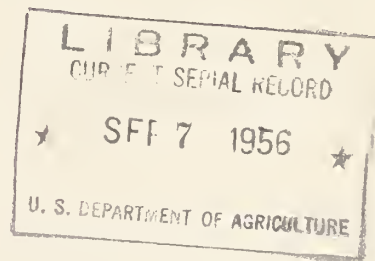
Do not assume content reflects current
scientific knowledge, policies, or practices.

Reserve
A280.39
M34Am

AMS-128
(Supplement No. 1)

August 21, 1956

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division



FIBER AND SPINNING TEST RESULTS FOR SOME VARIETIES OF COTTON
GROWN BY SELECTED COTTON IMPROVEMENT GROUPS
CROP OF 1956

Prepared in the Standards and Testing Branch

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour, crop of 1956

Test item	Deltapine 15					
	Texas					
	El Campo	Lyford	Navasota	Pt. Lavaca	Sugarland	
	Early	Midseason	Early	Early	Early	
<u>Raw Cotton Quality</u>						
Grade (official standards)	M	M	M	SM	M	
Staple length-----inches	31/32	1-1/32	31/32	31/32	1-1/32	
Fiber length (Fibrograph):						
Upper half mean-----inches	1.01	1.00	.99	.98	1.04	
Uniformity ratio-----	81	81	81	82	81	
Micronaire-----units 1/	3.8	4.4	3.6	4.1	4.2	
Fiber fineness----micrograms per in. 2/	3.9	4.4	3.6	4.1	4.1	
Fiber maturity-----index 2/	77	79	73	79	81	
Fiber tensile strength: (Pressley)						
1/8" gauge-----index 3/	96	104	104	104	100	
Zero gauge-----1,000 p.s.i.	85	79	93	83	89	
Nonlint content-----percent	3.1	2.0	3.2	1.6	2.8	
Color of raw cotton: 4/						
Reflectance-----Rd	73.0	76.4	74.2	74.1	73.6	
Yellowness-----+b	9.1	9.2	9.7	9.3	8.8	
Sugar content-----percent	0.3	0.3	0.2	0.3	0.2	
Acid-alkaline value-----pH units 5/	7.1	6.9	6.6	6.6	7.0	
<u>Processing Results</u>						
Picker and card waste-----percent	8.8	7.3	8.8	7.3	8.1	
Neps-----per 100 sq. in. of card web	14	11	19	11	11	
Yarn skein strength:						
22s-----pounds	108	119	120	117	122	
50s-----pounds	38	41	41	41	41	
Average break factor 6/	2138	2334	2345	2312	2367	
Yarn appearance:						
22s-----grade	B	B+	C+	B	B	
50s-----grade	C	B	C	C+	C+	
Average index 7/	100	115	95	105	105	

Continued on page 2

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour, crop of 1956--Continued

Test item	Deltapine (TPSA)			
	Texas			
	Danevang Early	EdCouch Midseason	Harlingen Midseason	Weslaco Midseason
Raw Cotton Quality				
Grade (official standards)	M	SM	SM	SM
Staple length-----inches:	1-1/32	1-1/32	1	1
Fiber length (Fibrograph):				
Upper half mean-----inches:	.98	.99	1.01	.98
Uniformity ratio-----:	81	81	80	83
Micronaire-----units 1/:	4.2	4.4	4.0	4.3
Fiber fineness----micrograms per in.2/:	4.2	4.2	4.0	4.3
Fiber maturity-----index 2/:	78	81	78	81
Fiber tensile strength: (Pressley)				
1/8" gauge-----index 3/:	101	98	100	103
Zero gauge-----1,000 p.s.i.:	87	80	78	81
Nonlint content-----percent:	2.6	2.0	2.3	1.6
Color of raw cotton: 4/				
Reflectance-----Rd:	74.0	78.9	76.9	77.5
Yellowness-----+b:	8.7	8.9	8.6	8.9
Sugar content-----percent:	0.2	0.3	0.3	0.2
Acid-alkaline value-----pH units 5/:	7.1	6.7	6.7	7.0
Processing Results				
Picker and card waste-----percent:	7.7	7.1	7.1	7.3
Neps-----per 100 sq. in. of card web:	13	11	16	14
Yarn skein strength:				
22s-----pounds:	113	115	118	115
50s-----pounds::	38	40	41	40
Average break factor 6/:	2193	2265	2323	2265
Yarn appearance:				
22s-----grade:	B+	B+	B	B
50s-----grade:	C+	B	C+	C+
Average index 7/:	110	115	105	105

Continued on page 3

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton by state, market area, and period of harvest, processed at a card production rate of 9-1/2 pounds per hour, crop of 1956--Continued

Test item	Delfos 9169		Lankart 57	
	Texas			
	Corpus Christi		Odem	
	Early	Midseason	Early	Midseason
Raw Cotton Quality				
Grade (official standards)	M	SM	M	M
Staple length-----inches:	1	31/32	31/32	31/32
Fiber length (Fibrograph):				
Upper half mean-----inches:	.98	1.00	.95	.96
Uniformity ratio-----	82	80	82	81
Micronaire-----units <u>1</u> /:	4.0	3.8	4.0	4.2
Fiber fineness---micrograms per in. <u>2</u> /:	4.0	3.8	4.1	4.3
Fiber maturity-----index <u>2</u> /:	77	75	76	77
Fiber tensile strength: (Pressley)				
1/8" gauge-----index <u>3</u> /:	100	97	105	101
Zero gauge-----1,000 p.s.i.:	82	86	79	82
Nonlint content-----percent:	2.7	2.1	3.1	2.2
Color of raw cotton: <u>4</u> /				
Reflectance-----Rd:	71.5	77.4	71.4	73.4
Yellowness-----+b:	9.3	9.1	9.3	8.9
Sugar content-----percent:	0.2	0.3	0.2	0.3
Acid-alkaline value-----pH units <u>5</u> /:	6.7	7.1	6.9	6.7
Processing Results				
Picker and card waste-----percent:	8.9	8.0	8.6	8.4
Neps-----per 100 sq. in. of card web:	24	19	18	11
Yarn skein strength:				
22s-----pounds:	105	103	114	114
50s-----pounds:	36	35	38	38
Average break factor <u>6</u> /	2055	2008	2204	2204
Yarn appearance:				
22s-----grade:	B	C+	B	3
50s-----grade:	C+	C+	C+	C+
Average index <u>7</u> /	105	100	105	105

1/ Fiber fineness and maturity in combination, as measured on untreated samples.

2/ Determined by the Causticaire method using the Micronaire instrument.

3/ Index of 100 equals a Pressley ratio of 3.19, which was the average strength of 1954 commercial crop of upland cotton in the United States.

4/ Determined by the Nickerson-Hunter Colorimeter on raw stock. R_d values indicate percent reflectance from 0 to 100 and +b values indicate degree of yellowness.

5/ Values below 7.0 indicate acidity. Values above 7.0 indicate alkalinity which when associated with abnormally low sugar content may indicate fiber degradation from the action of micro-organisms.

6/ Based on yarn skein strength of the two yarn numbers spun.

7/ Based on two numbers spun. Index of average quality equals 100.

